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John M. Schlarb

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EXAMINER

SALCE, JASON P

ART UNIT

PAPER NUMBER

2421

NOTIFICATION DATE

DELIVERY MODE

08/11/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

Office Action Summary

Application No.

09/709,167

Applicant(s)

SCHLARB ET AL.

Examiner

Jason P. Salce

Art Unit

2421

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 82-107 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 82-107 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/7/2009 has been entered.

Response to Arguments

Applicant's arguments filed 7/7/2009 have been fully considered but they are not persuasive.

Applicant has amended the independent claims to recite that, "***wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned***". The Examiner notes that the amended independent claims still read of the prior art of record.

Mankovitz discloses at Column 49, Lines 36-67 that a database stores a record that includes a series of boolean fields, wherein each boolean field corresponds to one bit. Mankovitz further discloses that each boolean field represents a certain category,

from a plurality of categories represented by multiple boolean fields. Therefore, Mankovitz teaches that each bit (**boolean field**) of the bit mask (**multiple boolean fields**) refers to one distinct category of a plurality of predetermined categories (**comedy, romantic movie or sports program**) and wherein the respective value at which each bit is set (**1 or 0**) indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (**whether the boolean field is set to "true" as taught by Mankovitz**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 82-92, 94, 95, 97, 98, 100 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (U.S. Patent No. 6,760,537).

Regarding Claim 82, Lasky shows in a television network a terminal for providing television program information and television programs (**see figure 5, col. 4 lines 10-35**

and 65-67, EPG system allowing to display category information and television program), the terminal comprising:

a memory configured for storing a first data and a second data (**col. 5 lines 64-67, col. 6 lines 1-20, program guide database contains record for each program and television programs to display to the viewer, figure 5 item 52**), said first data (**col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network and television programs to display to the viewer**) including respective program information for a plurality of corresponding television programs (**col. 6 lines 1-20, title field, time slot, end offset, start offset and length information and television programs to display to the viewer**), said second data different than the first data, the second data comprising a channel table (**electronic program-guide –EPG– category and channel information**) that includes a plurality of assigned channel categories to television channels (**see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**); and

a processor, coupled to the memory, the processor configured to simultaneously search at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49.**

The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information, wherein all data the system is stored in a digital system, which inherently contains data that is represented by 1s and 0s**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Regarding claim 83, it is met by the combination of Lasky and Mankovitz. In particular, Lasky discloses that the processor is further configured to cause the display of program information corresponding to the first data and corresponding to at least one television channel being determined by a corresponding category in the second data (**col. 5 lines 30-45, control program and clock I/O module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category**). Because Lasky shows that each channel can receive multiple programs with multiple categories (**col. 6 lines 1-20, each program designated differed category**), subsequently each channel is assigned a plurality of categories. As shown by the scrolling through of each program of a given category (**col. 6 lines 30-65**), a channel is designated a certain category at a particular time, which changes to a different category depending on the broadcast information.

Regarding Claim 84, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the processor causes the display in a browse banner of at least a portion of the first data including information of the at least one channel based and program information corresponding to the first portion of first data (**see fig. 6b, col. 6 lines 30-65, channel number and title of program**).

Regarding Claim 85, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the display of the browse banner on top of a portion of the

television program is responsive to receiving an input signal to initiate the browse command (**col. 6 lines 27-65, indicating that the "channel hat" icon is displayed when a user changes the channel, activating the browser or "channel hat"**).

Regarding Claim 86, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the processor can display a browser banner to replace a portion of the first data being displayed, the second portion of the first data being displayed according to a display configuration different than the browse banner configuration (**col. 5 lines 45-63, col. 6 lines 20-30, displaying program information in a program guide grid and banner system, as opposed to the "channel hat" method**).

Regarding Claim 87, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows displaying the corresponding category assigned to the channel in the banner (**fig. 6b, category 624 series (comedy)**).

Regarding Claim 88, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the display of the assigned category in the browser banner is responsive to a user selection from one from a plurality of categories (**col. 9 lines 55-67, col. 10 lines 1-10, surfing different programs by changing categories**).

Regarding Claim 89, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that a portion, or selected, category of the plurality of categories is shown to the user in the banner (**fig. 6b, category 624 series (comedy)**).

Regarding Claim 90, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows a graphical representation of navigation keys used on a user input device to browse the program information corresponding to the at least one television channel being determined by the corresponding assigned category in the second data (**fig. 6b, left and right arrows**).

Regarding Claim 91, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows the processor blocking the tuning of television channels different than the at least one television channel being determined by the corresponding assigned category in the second data (**col. 6 lines 30-65, scrolling left and right only displays those programs that are within the selected category**).

Regarding Claim 92, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows the processor restricts channel tuning to only the at least one channel being determined by a corresponding assigned category in the second data (**col. 6 lines 30-65, scrolling left and right only displays those programs that are within the selected category**).

Regarding Claim 94, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the at least one television channel being determined by a corresponding assigned category in the second data has two assigned categories (**col: 6 lines 1-20, category information including movies, sports, specials, news, etc., col. 6 lines 50-67, associating channel numbers and categories**). As discussed above, because Lasky shows that each channel can receive multiple programs with multiple categories (**col. 6 lines 1-20, each program designated differed category**), subsequently each channel is assigned a plurality of categories. As shown by the scrolling through of each program of a given category (**col. 6 lines 30-65**), a channel is designated a certain category at a particular time, which changes to a different category depending on the broadcast information.

Regarding Claim 95, Lasky shows a terminal comprising;

an interface to the television network said interface being capable of receiving a first data and a second data, said first data including respective program information for a plurality of corresponding television programs (**col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network and television programs to display to the viewer**); and

a processor, coupled to the memory, the processor configured to simultaneously search at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for**

other channels carrying programs in the same category—column 6, lines 31-49.

The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**)

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many

different categories to be easily represented and searched, while taking up little space (see Column 49, Lines 51-53 of Mankovitz).

Regarding claim 97, it is met by the combination of Lasky and Mankovitz. In particular, Lasky discloses that the processor is further configured for causing the display of program information in the first data (**col. 5 lines 30-45, control program and clock I/O module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category**), said program information corresponding to television programs being provided by at least a portion of the plurality of television channels said at least portion of the plurality of television channels being determined by a corresponding association to a first category in the second data (**col. 6 lines 30-40, showing existence of other programs within the same category**).

Regarding Claim 98, Lasky shows a terminal comprising:

a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes respective associations of one or more channel categories for a plurality of corresponding television channels (**see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**); and

a processor, coupled to the memory, for causing the display of a browse banner on top of a portion of a first television program being displayed responsive to receiving an initial activation of a browse command (**col. 5 lines 30-45, control program and block 1/0 module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category, fig. 6b browsing banner**), said browse banner comprising first program information (**fig. 6b, title and channel number**), said first program information corresponding to a second television program different than the first television program, wherein the processor causes the display of browse banner on top of the first television program without providing the second television program (**col. 6 lines 30-40, channel hat showing existence of other programs and channels relating to the selected category**), the processor further configured for simultaneously searching at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel

(see **Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (see **Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (see **Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (see **Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (see **Column 49, Lines 51-53 of Mankovitz**).

Regarding Claim 100, Lasky shows a terminal comprising:

a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of television channel

categories (col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program); and

a processor coupled to the memory (**col. 5 lines 30-45, control program and clock 1/0 module**), said processor configured to:

receive a user-selected television channel category (**col. 9 lines 55-67, col. 10 lines 1-10, user scrolls through available categories**), and

responsive to the receiving the user-selected television channel category, search at least a portion of the channel table and provide program information exclusively for television programs corresponding to television channels associated with the user-selected television channel category (**col. 6 lines 30-65, scrolling left and right only displays those program s that are within the selected category**),

wherein the processor is configured for simultaneously searching at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control**

program also reads the current time and determines whether any other program is current—column 6, lines 50-67).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Regarding Claim 104, Lasky shows a terminal comprising:

a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of television channel categories (**col. 5 lines 64-67, col. 6 lines 1-20, program guide database contains record for each program, figure 5 item 52, col. 5 lines 30-45, data input module 56**); each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**); and

a processor, coupled to the memory (**col. 5 Lines 30-45, control program and clock I/O module**), said processor configured to simultaneously searching at least a portion of the channel table and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**), wherein the association of the first category to at least one television channel is received by the terminal from the television network (**col. 6 lines 1-20, receiving program information including categories from television distribution network**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel

(see Column 49, Lines 47-50), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (see Column 49, Lines 47-57) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (see Column 49, Lines 62-67).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (see Column 49, Lines 36-67 for disclosing **that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category.**

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (see Column 49, Lines 51-53 of Mankovitz).

Referring to claims 106-107, see the rejection of claims 82, 95 and 100 and further note the Examiner's rebuttal above.

Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (US 6,760,537), as applied to claim 82, and in further view of Amano (US 5,585,865).

Regarding Claim 93, Lasky and Mankovitz show that at least one channel is a plurality of channels corresponding to the assigned category in the second data (Lasky—col. 6 lines 30-50, existence of other channels in category) and the processor causes the channel tuning to only said plurality of based on an order (Lasky—col. 6 lines 30-50, channels arranged in numerical order in that particular category).

Lasky and Mankovitz fail to disclose that this order is determined by the user.

In analogous art, Amano discloses that the order of channels is determined by a user sorted listing of said pluralities of channels (col. 6 lines 30-50, col. 7 Lines 8-21, programs in a designated channel are ordered based on the number of times the user watches 'that channel, with is user determined).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to have the user modify the order of listings, as taught by Amano, for the benefit of presenting a highly customized channel line up for the user.

Claims 96, 99, 101-103 and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (US 6,760,537), as applied to claim 95, and in further view of Yuen (US 5,673,089).

Regarding Claim 96, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 Lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of enabling a user to specify all local channels as a viewing subset, which allows easy access to local programming.

Regarding Claim 99, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of allowing a user to specify all local channels as a viewing subset and gain easy access to local programming.

Regarding Claim 101, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen shows that one category could be local broadcast channels (col. 5 lines 55-60, 'network channels, col. 6 lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of allowing a user to specify all local channels as a viewing subset and gain easy access to local programming.

Regarding Claim 102, Lasky shows a terminal comprising:

an interface for receiving data from the television network said interface being capable of receiving a first data and a second data said first data including respective program information for a plurality of corresponding television programs, said second data comprising a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of channel categories (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program, figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**), said plurality of categories including a first category (**col. 6 lines 1-20, multiple categories, and each program having different categories; because Lasky shows that each channel can receive multiple programs with multiple categories, subsequently each channel is assigned a plurality of categories**); and

processor (**col. 5 Lines 30-45, control program and clock 1/0 module**), configured to:

receive a second user input corresponding to the first channel category (**col. 9 Lines 55-65, pressing up and down to select category**), and responsive to the receiving the second user input, simultaneously searching at least a portion of the channel table and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) receive third user input corresponding to a selection of a channel category and, in response to receiving third user input, providing program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**), wherein the association of the first category to at least one television channel is received by the terminal from the television network (**col. 6 lines 1-20, receiving program information including categories from television distribution network**).

Lasky fails to disclose receiving a user input corresponding to the assignment of the first category to a first television channel and responsive to the receiving the first user input, store the association of the first category and the first television channel in the memory.

In analogous art, Yuen discloses receiving a user input corresponding to the assignment of the first category to a first television channel (**col. 5 lines 10-32, 36-67, col. 6 lines 1-26, user assigning multiple channel themes; user can also assign different channels to different themes (ABC under sports and news), hence assigning the channel different categories depending on the type of programming**) and responsive to the receiving the first user input, store the association of the first category and the first television channel in the memory (**col. 5 lines 10-16, channels stored in theme memory**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lasky with the user ability to assign categories to channels, as taught by Yuen, for the benefit of allowing a user with the capability of customizing a variety of display options in order to enhance the viewing experience.

Lasky and Yuen, Lasky in particular, further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program** ,

figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program).

However, Lasky and Yuen fail to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to one distinct category of a plurality of predetermined categories (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the one distinct category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky and Yuen, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Regarding Claim 103, it is met by the combination of Lasky and Yuen. In particular, Yuen further shows that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 lines 10-20, public broadcasting).

Regarding Claim 105, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 Lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as in Yuen, for the benefit of enabling a user to specify all local channels as a viewing subset, which allows easy access to local programming.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Jason P Salce/
Primary Examiner, Art Unit 2421

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